

REMARKS/ARGUMENTS

Applicants have received the Office action dated November 9, 2004, in which the Examiner: 1) objected to the drawings; and 2) rejected claims 1-21 under 35 U.S.C. § 103(a) as being unpatentable over Stevens (U.S. Pub. No. 2002/0133702) in view of Tavallaei et al. (U.S. Pat. No. 6,134,579).

With this Response, Applicants amend claims 1, 7-8 and 12, and cancel claims 18-21. Reconsideration is respectfully requested.

I. AMENDMENTS TO THE SPECIFICATION

With this Response, Applicants present a plurality of amendments to the specification. In particular, Applicants amend paragraph [0017] to make consistent use of the term "host bridge logic," and to correct a reference number. Applicants delete paragraph [0019]. Applicants amend paragraph [0022] to correct a reference number. Applicants amend paragraph [0023] to avoid an interpretation that the immediately following description necessarily defines the broadest aspect of the embodiments. Applicants amend paragraphs [0024] and [0026] to correct use of reference numbers. Finally, Applicants amend paragraph [0030] to avoid any interpretation as to what one of ordinary skill in the art may have known prior to reading the current specification. No new matter is added.

II. AMENDMENTS TO THE DRAWINGS

With this Response, Applicants present a plurality of amendments to Figure 1. In particular, Applicants add reference numbers 36 and 100 to Figure 1 so that the reference numbers match the specification. Further in Figure 1, Applicants add labels for elements 24, 28 and 34, which labels find support in the original specification paragraphs [0017], [0018] and [0020] respectively. These proposed amendments, along with the amendments to the specification, address the objections to the drawings in the Office action dated November 9, 2004.

III. CLAIM REJECTIONS

A. Claim 1

Claim 1 stands rejected as allegedly obvious over Stevens in view of Tavallaei. Applicants amend claim 1 to more clearly define over the system of

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Amendments to the Drawings:

The attached sheet of drawings includes changes to Fig. 1. This sheet, which includes Figs. 1 and 3, replaces the original drawing sheet containing these figures. In Figure 1, previously omitted reference numbers 36 and 100 have been added, along with labels for elements 24, 28 and 34.

Attachment: Replacement Sheet
Annotated Sheet Showing Changes

Stevens which provides a programming interface to open a protected area run-time interface extensions services (PARTIES) area.

Stevens is directed to a method of granting access to a protected area, such as a protected area of a disk drive. (Stevens Title; Paragraph [0001]). In particular, and with respect to the PARTIES area, Stevens provides a programming interface used to find and open the PARTIES area.

The present invention thus provides for a programming interface (implemented in accordance with the present methods) that software (the calling process) can find and which can be used to ask the system firmware to open the protected (PARTIES) area 27. Once the protected (PARTIES) area 27 is accessed, a user may use the calling process to perform various tasks in the protected (PARTIES) area 27.

(Stevens Paragraph [0066]). More particularly still, Stevens provides five functions related to accessing a PARTIES area: a "trust me" function (Stevens Paragraph [0067]) which validates the calling process; a retrieve service area directory function (Stevens Paragraph [0069]) which retrieves a service area directory; an open service area function (Stevens Paragraphs [0071], [0072]) which opens the PARTIES area by moving the SETMAX location; an open service area (with password) function (Stevens Paragraph [0073]); and a close service area function (Stevens Paragraph [0075]).

With regard to the nature of the "service areas," the specification of Stevens states:

The individual service areas can be used for data storage or for booting a fail-safe operating system.

(Stevens Paragraph [0050]). Given this definition of what is stored in the service areas, and that Stevens expressly states that, "Once the protected (PARTIES) area 27 is accessed, **a user may use the calling process to perform various tasks in the protected (PARTIES) area 27**" (Stevens Paragraph [0066] (emphasis added)), it appears that Stevens contemplates only that the programming interface and BIOS routines are used to open the service areas. The actual calling process performs the tasks in the data storage "service area."

Tavallaei is directed to a semaphore in system I/O space. (Tavallaei Title). In particular, the semaphore of Tavallaei is used when attempting to acquire an I/O resource. (Tavallaei Abstract).

Claim 1, by contrast, specifically recites, "requesting exclusive ownership of the BIOS routine by a software stream... ." Stevens is directed to opening a PARTIES area, and as noted in the Office action dated November 9, 2004, fails to mention requesting exclusive ownership of a BIOS routine. Tavallaei is directed to acquiring an I/O resource. Thus, even if Stevens and Tavallaei are hypothetically considered together (which Applicants do not admit is proper), the two references still fail to teach "requesting exclusive ownership **of the BIOS routine...** ." For this reason alone claim 1 should be allowed.

Claim 1 further recites, "calling the BIOS routine by the software stream, wherein the BIOS routine performs an operation on a shared variable... ." In Stevens, the programming interface and BIOS routines appear to be used only to open the "services area." Stevens expressly teaches that the calling process performs tasks in the "services area." Thus, even if Stevens and Tavallaei are properly considered together (which Applicants do not admit), the combination still fails to teach "calling the BIOS routine by the software stream, wherein the BIOS routine performs an operation on a shared variable... ." For this additional, claim 1 should be allowed.

Based on the foregoing, Applicants respectfully submit that claim 1 is not rendered unpatentable by Stevens and Tavallaei, and should be allowed together with all claims which depend from claim 1 (claims 2-6).

B. Claim 7

Claim 7 stands rejected as allegedly obvious over Stevens and Tavallaei. Applicants amend claim 7 to remove limitations not needed to define over the related art, and to more clearly define over the system of Stevens which provides a programming interface to open a protected area run-time interface extensions services (PARTIES) area.

Stevens is directed to a method of granting access to a protected area, such as a protected area of a disk drive. (Stevens Title; Paragraph [0001]). In

particular, Stevens provides a programming interface used to find and open the PARTIES area. (Stevens Paragraph [0066]). More particularly still, Stevens provides five functions related to accessing a PARTIES area: a "trust me" function; a retrieve service area directory function; an open service area function; an open service area (with password) function; and a close service area function. (Stevens Paragraphs [0067] – [0075]).

The "service areas" are used for either data storage or fail-safe booting of an operating system. (Stevens Paragraph [0050]). Given this, and that Stevens expressly states that, "Once the protected (PARTIES) area 27 is accessed, a **user may use the calling process to perform various tasks in the protected (PARTIES) area 27**" (Stevens Paragraph [0066] (emphasis added)), it appears that Stevens contemplates only that the programming interface and BIOS routines are used to open the service areas. The actual calling process performs the tasks in the data storage "service area."

Tavallaei is directed to a semaphore in system I/O space. (Tavallaei Title). In particular, the semaphore of Tavallaei is used when attempting to acquire an I/O resource. (Tavallaei Abstract).

Claim 7, by contrast, specifically recites, "wherein the software stream requests exclusive ownership of a BIOS routine prior to its use" Stevens is directed to opening a PARTIES area, and as noted in the Office action dated November 9, 2004, fails to mention requesting exclusive ownership of a BIOS routine. Tavallaei is directed to acquiring an I/O resource. Thus, even if Stevens and Tavallaei are hypothetically considered together (which Applicants do not admit is proper), the combination still fails to teach requesting "exclusive ownership **of a BIOS routine...**" For this reason alone claim 7 should be allowed.

Claim 7 further recites, "the software stream calls the BIOS routine to modify a shared variable" In Stevens, the programming interface and BIOS routines appear to be used only to open the "services area." Steven expressly teaches that the calling process performs tasks in the "services area." Thus, even if Stevens and Tavallaei are hypothetically considered together (which Applicants

do not admit is proper), the combination still fails to teach "the software stream calls the BIOS routine to modify a shared variable ...". For this additional, claim 7 should be allowed.

Based on the foregoing, Applicants respectfully submit that claim 7 is not rendered unpatentable by Stevens and Tavallaei, and should be allowed together with all claims which depend from claim 7 (claims 8-11). Applicants amend claim 8 to remove the "adapted to" terminology, and not to define over any related art.

C. Claim 12

Claim 12 stands rejected as allegedly obvious over Stevens and Tavallaei. Applicants amend claim 12 to more clearly define over the system of Stevens which provides a programming interface to open a protected area run-time interface extensions services (PARTIES) area.

Stevens is directed to a method of granting access to a protected area, such as a protected area of a disk drive. (Stevens Title; Paragraph [0001]). In particular, and with respect to PARTIES areas, Stevens provides a programming interface used to find and open the PARTIES area. (Stevens Paragraph [0066]). More particularly still, Stevens provides five functions related to accessing a PARTIES area: a "trust me" function; a retrieve service area directory function; an open service area function; an open service area (with password) function; and a close service area function. (Stevens Paragraphs [0067] – [0075]).

The "service areas," are used for either data storage or fail-safe booting of an operating system. (Stevens Paragraph [0050]). Given this, and that Stevens expressly states that, "Once the protected (PARTIES) area 27 is accessed, a user may use the calling process to perform various tasks in the protected (PARTIES) area 27" (Stevens Paragraph [0066] (emphasis added)), it appears that Stevens contemplates only that the programming interface and BIOS routines are used to open the service areas. The actual calling process performs the tasks in the data storage "service area."

Tavallaei is directed to a semaphore in system I/O space. (Tavallaei Title). In particular, the semaphore of Tavallaei is used when attempting to acquire an I/O resource. (Tavallaei Abstract).

Claim 12, by contrast, specifically recites, "opening the BIOS routines by the software thread to the exclusion of other software threads" Stevens is directed to opening a PARTIES area, and as noted in the Office action dated November 9, 2004, fails to mention exclusive ownership of a BIOS routine. Tavallaei is directed to acquiring an I/O resource. Thus, even if Stevens and Tavallaei are hypothetically considered together (which Applicants do not admit is proper), the combination still fails to teach **"opening the BIOS routines by the software thread to the exclusion of other software threads... ."** For this reason alone claim 12 should be allowed.

Claim 12 further recites, "calling the BIOS routines by the software thread, wherein the BIOS routines modify a shared variable... ." In Stevens, the programming interface and BIOS routines appear to be used only to open the "services area." Steven expressly teaches that the calling process performs tasks in the "services area." Thus, even if Stevens and Tavallaei are hypothetically considered together (which Applicants do not admit is proper), the two references still fail to teach "calling the BIOS routines by the software thread, wherein the BIOS routines modify a shared variable... ." For this additional, claim 12 should be allowed.

Based on the foregoing, Applicants respectfully submit that claim 12 is not rendered unpatentable by Stevens and Tavallaei, and should be allowed together with all claims which depend from claim 12 (claims 13-17).

IV. CLAIM CANCELLATIONS

With this Response, Applicants cancel claims 18-21 in order to narrow the issues before the Examiner. This cancellation is without prejudice to later asserting these claims, such as in a continuation application.

V. CONCLUSION

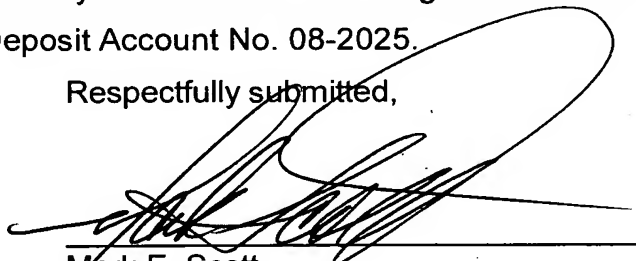
In the course of the foregoing discussions, Applicants may have at times referred to claim limitations in shorthand fashion, or may have focused on a

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particular claim element. This discussion should not be interpreted to mean that the other limitations can be ignored or dismissed. The claims must be viewed as a whole, and each limitation of the claims must be considered when determining the patentability of the claims. Moreover, it should be understood that there may be other distinctions between the claims and the cited art which have yet to be raised, but which may be raised in the future.

Applicants respectfully request reconsideration and that a timely Notice of Allowance be issued in this case. It is believed that no extensions of time or fees are required, beyond those that may otherwise be provided for in documents accompanying this paper. However, in the event that additional extensions of time are necessary to allow consideration of this paper, such extensions are hereby petitioned under 37 C.F.R. § 1.136(a), and any fees required (including fees for net addition of claims) are hereby authorized to be charged to Hewlett-Packard Development Company's Deposit Account No. 08-2025.

Respectfully submitted,



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